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ABSTRACT

The evolution of the social indicators movement is described, focusing particularly upon the split between those who hold that indicators are statistical time series for the measurement of social change and those who look to social indicators for evaluations of government programs. In addition to discussing these two positions and their impact on the social indicators movement, the paper points out the implications of each position for the development of indicators in the field of education. (Author/AC)

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Social Indicators: Tools for Evaluation or for the Study of Social Change?

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"Social indicators" and allied terms such as "social accounting," "quality of life," and "monitoring social change" came into use in the mid-60's. These phrases and the ideas they represented were taken up by social scientists, commentators, and policy makers who sensed that rapid social changes were taking place, but that these were not known either because they were not being measured or because they were measured but ignored. The administration at that time encouraged the idea that social change could and should be measured. It held, moreover, that the benefits and costs of domestic social programs are also subject to measurement and that the efficacy of federal programs would be increased by improved social measurement and planning, and by new management analytical techniques.

Further support for the development of social indicators was provided by a handful of social scientists and public administrators. Their enthusiasm brought forth responses from many disciplines: economists saw a role for their skills as theorists and measurers of welfare; sociologists saw the relevance of their own research tradition in the measurement of social trends; political scientists sought ways to rationalize government programs; and social workers, public administrators, and a broad array of social researchers and practitioners also responded to the possibilities in social indicators.

Out of this emerged what came to be known as the "social indicators movement." "Movement" was an apt designation in that, as in all movements in their initial stages, the participants were ill-defined as to membership, had little organization, and shared few specific objectives. At the same time, those who were part of the movement sensed great needs and opportunities for change, celebrated shared but necessarily ambiguous sumbols, and were led by able and articulate idealists.

Origins. Many of the concerns of the social indicators movement can be found in the work of the sociologist William F. Ogburn, who was research director for President Hoover's Research Committee on Social Trends. In 1933, this committee published the monumental Recent Social Trends, a report on social trends in the United States. Ogburn was committed to the application of social science research to the measurement and elucidation of changes in society. This knowledge, he believed, could be used in social planning. In 1929, he set forth his views on the significance of such research:

> ...there is a continuity in cultural change; one event grows out of another...the knowledge of what has occurred and of what is happening is the safest guide we have. With more complete statistics and with better measurement we shall obtain fuller knowledge of what is happening to us and where we are going. Only with these shall we be in a position even to begin to speak of control.

These two elements, a belief in the need for the measurement of social trends and a feeling that information on those trends can be useful in social planning, were present among those who were part of the social indicators movement beginning in the 1960's. The term "social indicators" became widespread following publication in 196? of a book by that title edited by Raymond Bauer. Bauer brought several prominent social scientists together to find ways to assess the secondary impacts of the space program. But their work cameinstead to focus on broader questions of social measurement and the assessment of the state of society relative to national goals. Albert Biderman's chapter in the Bauer volume showed that pertinent statistical indicators were available for only about half of the goals identified by the President's Commission on National Goals in 1960. Another chapter, "On Social Systems Accounting," called for the development of comprehensive models describing the structure and performance of entire social systems. These models were proposed to counter what Bertram Gross called the "new Philistinism," the tendency of "hard" measurements, usually in dollars, to dominate equally important but "softer", non-economic measurements of the state of society.

In the same year, the President's Commission on Technology, Automation, and Economic Progress called for the development of a system of social accounts that "would give more balanced reckoning of the meaning of social and economic progress, that would enable us to record not only the gains of social and economic change but

the costs as well...," and eventually might provide a "balance sheet" for use in clarifying policy choices.[4] Then-Senator Mondale proposed a Council of Social Advisers and an annual social report from the President to Congress in the several versions of his "Full Opportunity and Social Accounting Act." He also relied on this analogy to the national income accounts and their role in the policy process.

These early documents present diverse views of what social indicators are or should be. But they share common themes:

1) concern for the development and use of statistics measuring the social state of the nation;

2) emphasis on measures of noneconomic dimensions of well-being; and

3) commitment to the idea that better information on social trends would improve public policy.

Major Components. Becuase the social indicators movement attracted people from many disciplines and with highly diverse backgrounds, participants looked to social indicators for a variety of purposes. Four major research traditions have evolved:

1) net national welfare measurement

2) national goals accounting

3) evaluation research and social experimentation

4) measurement of social change

It is the last two of these--evaluation research and social experimentation and the measurement of social change--which I will discuss today. Both grow out of the tradition of William Ogburn--one emphasizing

the measurement of social trends and the other the utilization of such information in the determination and analysis of public policy.

Indicators in Evaluation. Disappointment with the results of domestic social programs in the 1960's directed attention to the need for a more scientific approach to program testing and evaluation, as illustrated in the New Jersey Income Maintenance Experiment and the evaluation of the Head Start program. In early discussions of social indicators, it was suggested that indicators could be used as the basis for program evaluation.

More recently, there has been growing interest in the use of indicators for the evaluation of schools and school systems. This interest is related to two tendencies in education:

1) public demands for accountability in education;

2) concern for measures of educational quality.

Let us look at these more closely.

1) In the face of declining student performance on national tests, there have been increasing demands from parents and the general public that the schools be held accountable for student performance. When these demands are expressed at the state level, statewide assessments of educational performance are frequently mandated, and a growing number of states have undertaken periodic educational assessment programs. At present, some 30 to 35 states have provisions for statewide assessments of education. Certain of these, such as New York, Utah, and Oregon, are looking to indicators for these assessments on the assumption

that student performance can be measured and change in student performance can be linked to the "performance" of schools.

2) Somewhat related to the use of indicators in statewide assessments is the use of indicators for measuring the quality of education. For example, fears that the quality of education is declining have led the state of Pennsylvania to establish ten goals of quality education which must now be measured with indicators and reported to the public. These are goals for individual students which are to be achieved by the schools. Consequently, the school is the unit of analysis. The effectiveness of schools in meeting these goals for students, it is assumed, can be measured by indicators of inputs to the schools and indicators of school outcomes. Outcomes or output indicators include measures of student performance in tests of basic skills and measures of student attitudes and perceptions

Indicators in the measurement of social change. A broader view of social indicators, advocated by many leading theorists and practitioners, defines the role of indicators as one of social measurement and analysis which can improve our understanding of what the main features of society are, how they are interrelated, and how these features and their relationships change. Otis Dudley Duncan stated the case well when he wrote: "What we must have, minimally, are quantitative statements about social conditions and social processes, repeatedly available through time, the reliability and validity of which are competently assessed and meet minimal standards."

This view of social indicators has been prominent since the early days of the social indicators movement. Social indicators as measures of changes in social conditions had been discussed in the Bauer book. In 1968, an 800-page volume entitled Indicators of Social Change: Concepts and Measurement was published by the Russell Sage Foundation. This volume and associated works contained detailed reviews of conceptual and measurement problems in the delineation of demographic, social structural, and other types of change in the United States. The conceptual and measurement problems imvolving subjective data--data, that is, on public aspirations, expectations, and satisfactions--were examined in The Human Meaning of Social Change, published in 1972. Given the view of the social indicators enterprise as the measurement of social conditions and social change, the major tasks of social indicators work can be seen as development of the data base, conceptual and methodological work toward the definition of measures of social change, and the development of social indicator models.

Objections to the use of indicators in evaluation. These two uses of social indicators--in the measurement of social change and in the evaluation of social programs such as in education--are based on two rather different views of what social indicators can accomplish. Their differences highlight the problems inherent in the use of indicators for evaluation. A principal distinction is that those who look to indicators for measures of social change emphasize the need for extensive work before the field can move far

beyond the interpretation of individual time series. Work is needed to develop measures which are both reliable and valid. Reliable measures are those which are consistent performers and not subject to arbitrary shifts in meaning. Validity is determined by knowing how an indicator was put together, how it compares with other measures of the same concept, and how it rises and falls. In addition to reliability and validity, we need to learn more about the relationships between indicators--how a change in one indicator is affected by or leads to a change in another indicator. In most areas, this basic indicator research has yet to be done.

The use of indicators for evaluation presupposes that we know what indicators measure and how indicators are related. For example, when indicators are used to assess schools, the assumption is made that student performance is directly and regularly related to educational inputs such as teacher performance or local investment in education. While this might be the case, the influences on what and how much students learn are far broader than what has been or can be reliably measured as institutional inputs to education. Schools are not closed systems nor is education solely a product of the schools. And any attempt to tie indicators of student performance exclusively to indicators of school inputs is misleading because it ignores the influence of home, environment, health, use of leisure time, and other factors which also affect learning. Indicators can be used to describe schools, trends in education, or changes in student

performance, but indicators cannot be used to evaluate the efficiency of particular educational approaches, programs, or school systems.

A further objection to the use of indicators in evaluation involves the recent emphasis on experimental design in program evaluation. The direct use of social indicators is not likely to be fruitful for evaluation in the absence of experimental design because of the difficulty of showing that specific educational policies or investments, rather than uncontrolled exogenous factors, determine the outcomes measured by indicators. Yet educational assessments rarely if ever, compare experimental schools and control schools. As Eleanor Sheldon and Howard Freeman have written, "The use of indicators to evaluate programs would require one to be able to demonstrate, via statistical manipulations, that programs determine the outcomes measured by the indicators rather than other factors 'causing' the results... There is no possibility at the present time of meeting the requirements of controlling for contaminating variables with available statistics that may be regarded as indicators, at least ones that cover large groups of individuals."

The role of social indicators in education. If indicators cannot easily be used in evaluating schools, how can they be used in the field of education? At present, indicators can and are being used in descriptive social reporting. At the national level, there are a number of social reports on education: the National Center for Education Statistics produces two annual

reports, The Condition of Education and the Digest of Education Statistics, and the National Institute of Education has recently published what promises to be a periodic report, 1976 Databook: The Status of Education Research and Development in the United States. State assessments of education, to the extent that they are descriptive analyses of education rather than evaluations of the educational programs in specific schools or school systems, also fall within this tradition. However, there is still a great deal of work which needs to be done on education indicators. We need to develop measures of trends in education which are not now being measured, such as measures of curricular changes, of time use in the classroom, and of learning which takes place outside the classroom. In addition, more work is needed to identify societal, local, and family influences on education.

In short, education indicators are most useful when they describe rather than evaluate education systems and institutions, and when they are used to report on trends in education rather than to prescribe changes in schools.

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